

Serial No. 09/598,890

IN THE CLAIMS:

Please amend claims 17-26 and 30-55 as follows:

17. (Amended) A supply element for a laboratory microchip with a microfluid structure for at least one of chemical, physical, or biological processing, the supply element comprising:

at least one substance-containing first supplier adapted to contain a substance, said at least one first supplier having a seal arranged to be opened to the microchip in response to the supply element and the microchip being joined together to enable said substance to be transferred from said at least one first supplier to a second supplier disposed within the microchip.

18. (Amended) The supply element of claim 17, wherein said seal of said at least one first supplier of the supply element comprises a chemically resistant substance.

19. (Amended) The supply element of claim 17, wherein said seal of said at least one first supplier of the supply element comprises a wax.

20. (Amended) The supply element of claim 17, wherein said at least one first supplier of the supply element comprises at least one end sealed by a membrane that is flush with a side surface of the supply element.

23. (Amended) The supply element of claim 17, wherein said substance of said first supplier of the supply element comprises at least one substance sample.

Serial No. 09/598,890

24. (Amended) The supply element of claim 17, wherein said substance of said first supplier of the supply element comprises at least one substance reagent.

25. (Amended) The supply element of claim 17, wherein said substance of said first supplier of the supply element comprises at least one substance sample and at least one substance reagent.

26. (Amended) The supply element of claim 17, further comprising a third supplier to transfer a potential to the microchip, said third supplier of the supply element being arranged to be coupled to a corresponding fourth supplier disposed within the microchip.

30. (Amended) The supply element of claim 17, further comprising first and second assemblies, said first assembly including a module adapted to carry said supply element and supply equipment and said module being adapted to be releasably connected to said second assembly.

31. (Amended) The supply element of claim 17, wherein said seal of said at least one first supplier of the supply element is adapted to be pierced by an end of said second supplier of the microchip to enable said substance to be transferred from said at least one first supplier of the supply element to the second supplier of the microchip.

32. (Amended) A method of operating a supply element for a laboratory microchip with a microfluid structure for at least one of chemical, physical, or biological processing, the method comprising:

supplying substances to the microchip with a first supplier disposed within the microchip;

supplying a potential to the microchip with a second supplier disposed within the microchip to move substances corresponding to the microfluid structure,

containing a substance in at least one substance-containing third supplier disposed within the supply element;

Serial No. 09/598,890

opening a seal in said at least one third supplier of the supply element in response to the supply element and the microchip being joined together, and

transferring said substance from said at least one third supplier of the supply element to the first supplier of the microchip.

33. (Amended) The method of claim 32, wherein opening said seal of said at least one third supplier of the supply element comprises opening a seal comprising a chemically resistant substance.

34. (Amended) The method of claim 32, wherein opening said seal of said at least one third supplier of the supply element comprises opening a seal comprising a wax.

35. (Amended) The method of claim 32, further comprising sealing at least one end of at least one third supplier of the supply element with a membrane that is flush with a side surface of the supply element.

36. (Amended) The method of claim 35, wherein sealing at least one end of at least one third supplier of the supply element with a membrane comprises sealing with a membrane comprising a chemically resistant material.

37. (Amended) The method of claim 35, wherein sealing at least one end of at least one third supplier of the supply element with a membrane comprises sealing with a membrane comprising one of a metal or a gas-permeable polymer.

38. (Amended) The method of claim 32, wherein containing a substance in at least one substance-containing third supplier of the supply element comprises containing at least one substance sample.

Serial No. 09/598,890

39. (Amended) The method of claim 32, wherein containing a substance in at least one substance-containing third supplier of the supply element comprises at least one substance reagent.

40. (Amended) The method of claim 32, wherein containing a substance in at least one substance-containing third supplier of the supply element comprises containing at least one substance sample and at least one substance reagent.

41. (Amended) The method of claim 32, further comprising coupling a fourth supplier disposed within the supply element to the corresponding second supplier of the microchip and transferring a potential from the fourth supplier of the supply element to the second supplier of the microchip.

42. (Unchanged) The method of claim 32, further comprising releasably attaching the supply element to supply equipment.

43. (Unchanged) The method of claim 42, wherein releasably attaching the supply element to supply equipment comprises releasably attaching with a bayonet lock.

44. (Unchanged) The method of claim 32, further comprising identifying the supply element to a second corresponding coding arrangement of supply equipment with a first coding arrangement.

45. (Unchanged) The method of claim 32, further comprising containing a module carrying said supply element with a first assembly and releasably connecting said module to said second assembly with a second assembly.

46. (Amended) The method of claim 32, further comprising piercing said seal of said at least one third supplier of the supply element with an end of said first supplier of the

Serial No. 09/598,890

E14 microchip and transferring said substance to be transferred from said at least one third supplier of the supply element to the first supplier of the microchip.

47. (Amended) A supply element combined with a laboratory microchip, the combination comprising:

a microfluid structure disposed within the microchip and adapted for at least one of chemical, physical, or biological processing;

a first supplier disposed within the microchip and adapted to supply substances to the microchip;

E15 a second supplier disposed within the microchip and adapted to supply a potential to the microchip to move substances corresponding to the microfluid structure; and

at least one substance-containing third supplier disposed within the supply element and adapted to contain a substance, said at least one third supplier of the supply element having a seal arranged to be opened to the microchip in response to the supply element and the microchip being joined together to enable said substance to be transferred from said at least one third supplier of the supply element to the first supplier of the microchip.

48. (Amended) The supply element combined with a laboratory microchip of claim 47, further comprising a fourth supplier disposed within the supply element to transfer the potential to the microchip, said fourth supplier being arranged to be coupled to the corresponding second supplier of the microchip.

49. (Amended) The supply element combined with a laboratory microchip of claim 47, further comprising first and second assemblies, said first assembly including a module adapted to carry said supply element and supply equipment and said module of said first assembly being adapted to be releasably connected to said second assembly.

50. (Amended) The supply element combined with a laboratory microchip of claim 47, wherein said seal of said at least one third supplier of the supply element is adapted to be pierced by an end of said first supplier of the microchip to enable said substance to be

Serial No. 09/598,890

transferred from said at least one third supplier of the supply element to the first supplier of the microchip.

51. (Amended) A method of operating a supply element combined with a laboratory microchip, the method comprising:

providing the laboratory microchip with a microfluid structure adapted for at least one of chemical, physical, or biological processing;

supplying substances to the microchip with a first supplier disposed within the microchip;

supplying a potential to the microchip with a second supplier disposed within the microchip to move substances corresponding to the microfluid structure;

containing a substance in at least one substance-containing third supplier disposed within the supply element;

opening a seal in said at least one third supplier of the supply element to the microchip in response to the supply element and the microchip being joined together; and

transferring said substance from said at least one third supplier of the supply element to the first supplier of the microchip.

52. (Amended) The method of claim 51, wherein opening said seal in said at least one third supplier comprises opening a seal comprising a chemically resistant substance.

53. (Amended) The method of claim 51, further comprising sealing at least one end of at least one third supplier of the supply element with a membrane that is flush with a side surface of the supply element.

54. (Amended) The method of claim 53, wherein sealing at least one end of at least one third supplier of the supply element with a membrane comprises sealing with a membrane comprising a chemically resistant material.

Serial No. 09/598,890

E/S 55. (Amended) The method of claim 53, wherein sealing at least one end of at least one third supplier of the supply element with a membrane comprises sealing with a membrane comprising one of a metal or a gas-permeable polymer.

Serial No. 09/598,890

53. (Amended) The method of claim 51, further comprising sealing at least one end of at least one third supplier of the supply element with a membrane that is flush with a side surface of the supply element.

54. (Amended) The method of claim 53, wherein sealing at least one end of at least one third supplier of the supply element with a membrane comprises sealing with a membrane comprising a chemically resistant material.

55. (Amended) The method of claim 53, wherein sealing at least one end of at least one third supplier of the supply element with a membrane comprises sealing with a membrane comprising one of a metal or a gas-permeable polymer.